

LISTING OF CLAIMS

Please AMEND claims 12, 18, 19 and 22 as follows.

Please ADD claim 32 – 35 as follows.

Please CANCEL claims 23 without prejudice or disclaimer.

This listing of claims will replace all prior versions, and listings, of claims in this application:

Listing of Claims

1. – 11. (Canceled).

12. (Currently Amended) A groove profile for a positive hub-shaft connection comprising:
a hub having a plurality of grooves with an essentially quadrilateral groove cross section;
a shaft having a plurality of grooves with an essentially quadrilateral groove cross section;
at least one rib radially projecting from one of the grooves of the hub or shaft towards one of the grooves of the other of the hub or shaft;
a radially inward surface of the groove of the hub forms a hub groove head and a radially outward surface of the groove of the hub forms a hub groove root; and
a radially inward surface of the groove of the shaft forms a shaft groove root and a radially outward surface of the groove of the shaft forms a shaft groove head,
wherein the at least one rib projects radially from one of the hub groove head, the hub groove root, the shaft groove head, and the shaft groove root,

wherein the hub groove roots and the hub groove heads of the plurality of grooves of the hub and the shaft groove roots and the shaft groove heads of the plurality of grooves of the shaft are each substantially flat, and

wherein at least one of the hub and the shaft is a thin-walled hollow profile which is internally and externally splined.

13. (Previously Presented) The groove profile of claim 12, wherein the at least one rib radially extends from one of each hub groove head, each hub groove root, each shaft groove head and each shaft groove root.

14. (Previously Presented) The groove profile of claim 12, wherein the at least one rib runs parallel to a flank of the groove from which the rib projects.

15. (Previously Presented) The groove profile of claim 14, wherein the at least one rib runs along an entire length of the groove from which the rib projects.

16. (Previously Presented) The groove profile of claim 12, wherein the at least one rib has a trapezoidal cross section tapering outwards and has a maximum width of 50% of a width of a corresponding groove from which the rib projects.

17. (Previously Presented) The groove profile of claim 16, wherein the at least one rib has a trapezoidal cross section tapering outwards and has a maximum width of 25% of a width of the corresponding groove from which it projects.

18. (Currently Amended) ~~The groove profile of claim 12, A groove profile for a positive hub-shaft connection comprising:~~

a hub having a plurality of grooves with an essentially quadrilateral groove cross section;

a shaft having a plurality of grooves with an essentially quadrilateral groove cross section;

at least one rib radially projecting from one of the grooves of the hub or shaft towards one of the grooves of the other of the hub or shaft;

a radially inward surface of the groove of the hub forms a hub groove head and a radially outward surface of the groove of the hub forms a hub groove root; and

a radially inward surface of the groove of the shaft forms a shaft groove root and a radially outward surface of the groove of the shaft forms a shaft groove head,

wherein the at least one rib projects radially from one of the hub groove head, the hub groove root, the shaft groove head, and the shaft groove root,

wherein the hub groove roots and the hub groove heads of the plurality of grooves of the hub and the shaft groove roots and the shaft groove heads of the plurality of grooves of the shaft are each substantially flat,

wherein at least one of the hub and the shaft is a thin-walled hollow profile which is internally and externally splined, and

wherein a radius of a support surface of the at least one rib is such that the at least one rib imparts a connection between the hub grooves and the shaft grooves that is one of free from play and under initial stress with respect to a longitudinal axis of the hub or the shaft.

19. (Currently Amended) The groove profile of claim 12, wherein at least two parallel ribs radially extend from one of each hub groove head, each hub groove root, each shaft groove head and each shaft groove root.

20. (Previously Presented) The groove profile of claim 12, wherein the essentially quadrilateral groove cross section is an essentially rectangular groove cross section.

21. (Previously Presented) The groove profile of claim 12, wherein the essentially quadrilateral groove cross section is an essentially trapezoidal groove cross section.

22. (Currently Amended) A telescopic tube for drive shafts, comprising:

an outer tube having a plurality of grooves with an essentially quadrilateral groove cross section;

an inner tube having a plurality of grooves with an essentially quadrilateral groove cross section;

at least one rib radially projecting from one of the grooves of the outer tube or inner tube towards one of the grooves of the other of the outer tube or inner tube;

a radially inward surface of the groove of the outer tube forms an outer tube groove head and a radially outward surface of the groove of the outer tube forms an outer tube groove root; and

a radially inward surface of the groove of the inner tube forms an inner tube groove root and a radially outward surface of the groove of the inner tube forms an inner tube groove head,

wherein the at least one rib projects radially from one of the outer tube groove head, the outer tube groove root, the inner tube groove head, and the inner tube groove root,

wherein the outer tube groove roots and the outer tube groove heads of the plurality of grooves of the outer tube and the inner tube groove roots and the inner tube groove heads of the plurality of grooves of the inner tube are each substantially flat, and

wherein at least one of the outer tube and the inner tube is a thin-walled hollow profile which is internally and externally splined.

23. (Canceled).

24. (Previously Presented) The telescopic tube according to claim 22, wherein the inner tube and the outer tube are hollow bodies each with an approximately uniform profile thickness.

25. (Previously Presented) The telescopic tube of claim 22, wherein the essentially quadrilateral groove cross section is an essentially rectangular groove cross section.

26. (Previously Presented) The telescopic tube of claim 22, wherein the essentially quadrilateral groove cross section is an essentially trapezoidal groove cross section.

27. (Withdrawn) A method of producing the groove profile in accordance with claim 12, the method comprising:

conforming a surface of one of the hub and the shaft with a profile mandrel through engagement with one or more profile rollers; and

profiling the surface of one of the hub and the shaft to form the at least one rib.

28. (Withdrawn) The method of claim 27, further comprising:

periodic impacting engaging of the one or more profile rollers with a surface of one of the hub and the shaft.

29. (Withdrawn) A method of producing the telescopic tube in accordance with claim 22, the method comprising:

conforming a surface of one of the outer tube and the inner tube with a profile mandrel through engagement with one or more profile rollers; and

profiling the surface of one of the outer tube and the inner tube to form the at least one rib.

30. (Previously Presented) The groove profile of claim 12, wherein the at least one rib is formed in one piece from a material of the groove from which the at least one rib projects.

31. (Previously Presented) The telescopic tube according to claim 22, wherein the at least one rib is formed in one piece from a material of the groove from which the at least one rib projects.

32. (New) The groove profile of claim 12, wherein substantially flat comprises lying along one of a plurality of circles concentric with the hub and the shaft.

33. (New) A groove profile for a positive outer tube-inner tube connection comprising:

a outer tube having a plurality of grooves with an essentially quadrilateral groove cross section;

a inner tube having a plurality of grooves with an essentially quadrilateral groove cross section;

at least one rib radially projecting from one of the grooves of the outer tube or inner tube towards one of the grooves of the other of the outer tube or inner tube;

a radially inward surface of the groove of the outer tube forms a outer tube groove head and a radially outward surface of the groove of the outer tube forms a outer tube groove root; and

a radially inward surface of the groove of the inner tube forms a inner tube groove root and a radially outward surface of the groove of the inner tube forms a inner tube groove head,

wherein the at least one rib projects radially from one of the outer tube groove head, the outer tube groove root, the inner tube groove head, and the inner tube groove root,

wherein the outer tube groove roots and the outer tube groove heads of the plurality of grooves of the outer tube and the inner tube groove roots and the inner tube groove heads of the plurality of grooves of the inner tube are each substantially flat,

wherein at least one of the outer tube and the inner tube is a thin-walled hollow profile which is internally and externally splined, and

wherein a radius of a support surface of the at least one rib to an opposite groove root or groove head is embodied such that the outer tube-inner tube connection is one of free from play and under initial stress with respect to a longitudinal axis of the outer tube or the inner tube.

34. (New) The groove profile of claim 33, wherein substantially flat comprises lying along one of a plurality of circles concentric with the outer tube and the inner tube.

35. (New) The groove profile of claim 18, wherein substantially flat comprises lying along one of a plurality of circles concentric with the hub and the shaft.